

**UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
STUDY PLAN**

Study ID code	CAPMC-T-0216-BF	
Title	Evaluation of plant materials for biofuel	
National Project No.	Cropland 3.1	
Study Type	AE	
Study status	Active	
Location	CAPMC	
Study Leader	David Dyer, CAPMC	
Duration	2002 - 2007	
Cooperators	USDA-ARS	
Land Use	Cropland, rangeland	
Vegetative Practices	Primary	512 Pasture and Hay planting
	Secondary	550 Range planting
Resource concerns	<u>Resource</u>	<u>Consideration/Problem</u>
	Air	Carbon Sequestration
	Soil	Carbon Sequestration
Long Range Plan	Study falls under Section IV, Part 1 and 4 of the CA PM LRP	
Description	Determine sugar levels and ethanol production levels for production of fuel from common California plant materials	
Status of Knowledge	Alternative fuels are needed to combat global warming and ethanol is needed as a gas fuel additive	
Experimental Design	Four replication samples obtained in each plot	
Treatment 1	Title: 50 PLS per sq. foot planting of common species Description: Plant 20X20' plots	
Materials and Methods	Samples of seed assembled from PMC inventory. 20X20' plots planted in fall of 2002. Planting rate of 50 PLS per sq. foot used. 10X10 CM Samples taken at four stages of growth: vegetative, boot (50% of stems at boot), Anthesis (mid-anthesis), seed maturity. Samples are taken at four random points in each plot. Samples are placed in brown	

bags and chilled to 4 C and shipped overnight to ARS lab. Obtain replicated soil samples. Data analysis will be done by ARS. Weed control is performed as needed.

Final Evaluations

None

Technology Transfer

Potential ethanol production standards

Products

TechNote, Journal papers

Literature Cited

There is a need for California plant materials production to be used for ethanol fuel production so ethanol can be produced economically in California and not shipped in.

Keywords

Biofuel, cover crops, carbon sequestration

**Review by:
Approvals:**

CA. State Plant Materials Committee
As per approval of CAPMC Business Plan